

10.2000(A)

AUTHORS: Kholev, S. R., Poltavchenko, D. S.

69991
S/020/60/131/05/020/069
B013/B007

TITLE: The Acceleration of a Discharge Plasma and the Production of Strong Shock Waves in a Chamber With Coaxial Electrodes

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 131, Nr 5, pp 1060-1063 (USSR)

TEXT: In the present paper, not only a method for plasma acceleration, but also the production of strong shock waves is investigated. In this case a particular kind of re-distribution of energy is possible: The gas compressed by the accelerated plasma is able to change into a plasma with an even higher temperature. The accelerating device consists of a central rod and a coaxial cylindrical rod. The discharge current is supplied by a capacitor battery. The ponderomotoric force $\vec{F} = [\vec{I} \vec{H}]$ is, irrespective of the direction of the current, always directed towards the output from the accelerating electrodes. Here \vec{I} denotes the discharge current and \vec{H} the concentric magnetic field of the central electrode. The magnetic field must therefore act upon the plasma of discharge like a piston. The equation of motion is $\frac{d}{dt}(mv) = \frac{1}{2} I^2(t) \frac{dL}{dx}$. Here, m denotes the mass of the accelerating gas, v - its velocity, $dL/dx = b$ - the inductivity of the

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accelerating electrodes related to the unit of length. Here it is by no means necessary to determine the concrete character of the interaction of the magnetic field of the accelerating electrodes with the current flowing in the gas. The oscillogram of the current may be approximated with fair accuracy by

$I = Ae^{-Bt} \sin\omega t$. The experiments were carried out with air within the pressure range of 0.02-0.75 torr with continuous pumping-out. Figure 2 shows a typical example of self-luminescence due to the process in a magnetic chamber. A particularly characteristic feature is the ejection of the plasma of discharge from the region between the electrodes and its acceleration between the electrodes. Under these conditions, the front of the luminescent current is a shock wave. Also the existence of the rear boundary of the accelerating plasma is essential, for this rear boundary is accelerated by a strong magnetic field. Figure 3 shows the acceleration of the plasma in a chamber of 5 cm diameter at $C = 600 \mu F$. In the experiments performed with a $2400 \mu F$ capacitor battery, rather high velocities were attained. In this case, the plasma is rather considerably accelerated in its motion between the accelerated electrodes, and besides it is markedly damped after output from the electrodes. Table 1 contains the equilibrium

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parameters of the air behind the shock wave for several typical experiments. In their calculations, the authors proceeded from the measured velocities of the shock wave at the output from the accelerating electrodes. The problem of the equilibrium of the gas parameters behind the shock wave is, under the conditions investigated here, not yet solved. The results obtained by the discussed experiments confirm the efficiency of the method suggested by the authors for plasma acceleration. The velocities of the shock wave and of the plasma attained 30-80 km/sec at initial pressures ranging from 0.7 to 0.02 torr in air and with an initial voltage of 5000 v. However, also the hydrodynamic forces play an important part. When using hydrogen as accelerated gas, the velocities of motion of the plasma must increase. The authors thank A. S. Predvoditelev for his attention in connection with the present paper, and Ya. B. Zel'dovich for valuable advice while the paper was being printed. There are 4 figures, 1 table, and 10 references, 7 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

Card 3/4

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FGIMAN, R. A.

Efficiency of pike perch and bream spawning. Gidrobiol. zhur.
1 no.2:55-56 '65. (MIRA 18:6)

1. Institut gidrobiologii AN UkrSSR, Kiyev.

POLTAVCHUK, Maksim Alekseyevich; PAVLOV, I.P., doktor biol. nauk
otv. red.; SHARPILO, L.D., red.

[Biology and cultivation of Dnieper pike perch in closed
bodies of water] Biologija i razvedenie dneprovskogo su-
daka v zamkrutykh vodoemakh. Kiev, Naukova dumka, 1965.
256 p. (MIRA 18:9)

POLIVANNAYA, M.F. [Polyvanna, M.F.]; POLTAVCHUK, M.O.

Rearing and nutrition of young pike perch in ponds devoid of food
fishes. Nauk. zap. Kyiv. un. 15 no.11:43-56 '56. (MIRA 11:5)
(Perch) (Fish culture)

POLTAVCHUK, M.O.

Transporting breeders, larvae, and eggs of the Dnieper pike perch
and some preliminary results of stocking natural and artificial
bodies of water with them in the Ukrainian S.S.R. Trudy Inst.
gidrobiol. AN URSS no.27:82-104 '52. (MLRA 9:8)
(Dnieper River--Perch)

POLTAVETS, A.Ya.; KOLESNIKOV, G.F.

Utilization of the heat emitted by the compressor operation for the production of distilled water. Prom.energ. 16 no.6:10 Je '61.
(MIRA 15:1)
(Water, Distilled) (Steam)

BARATOV, Georgiy Fedorovich; SHMUSHKO, L.G., obshchiy red.; POLTAVETS,
I.M., red.; POTOTSKAYA, L.A., tekhn.red.

[Local civil antiaircraft defense during a gas, nuclear, and
bacteriological attack] Mestnaia protivovozdushnaisa oborona
naseleniya v usloviakh khimicheskogo, atomnogo i bakteriolo-
gicheskogo napadeniya. Pod obshchey red. L.G. Shmushko. Kiev,
Gos.med.izd-vo USSR, 1959. 300 p. (MIRA 12:12)
(Civil defenses)

Poltavets, I. M.

PHASE I BOOK EXPLOITATION

SCV/6259

Poltavets, Ivan Mikhaylovich, Faina Fedorovna Sinitsyna, Mark Petrovich Philippov, and Mikhail Panteleymonovich Kolyada

Ostryye radiatsionnyye porazheniya i ikh lecheniye (Acute Radiation Diseases and Their Treatment) Kiyev, Medgiz UkrSSR, 1962. 154 p. (Series: Biblioteka prakticheskogo vracha)
4180 copies printed.

Ed.: N. I. Konstantinov; Tech. Ed.: L. A. Zapol'skaya.

PURPOSE: The book is intended for physicians in all specialities and for students of advanced courses at medical institutes.

COVERAGE: The book describes methods of treating severe radiation injuries, the treatment of patients with radiation sickness, and the pathological changes occurring in the organism in the course of radiation sickness. Classification, diagnosis, and evacuation of casualties from areas of massive destruction and the organization of dosimetric control among the personnel and

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1/2

POLTAVETS, Ivan Mikhaylovich; SINITSYNA, Faina Fedorovna; FILIPPOV,
Mark Petrovich; KOLYADA, Mikhail Panteleymonovich;
KONSTANTINOV, N.I., red.; ZAPOL'SKAYA, L.A., tekhn. red.

[Acute radiation lesions and their treatment] Ostrye ra-
diatsionnye porazheniya i ikh lechenie. Kiev, Gosmedizdat
USSR, 1962. 154 p. (MIRA 16:7)
(RADIATION SICKNESS)

PHASE I BOOK EXPLOITATION

SOV/6259

Poltavets, Ivan Mikhaylovich, Faina Fedorovna Sinityna, Mark Petrovich Filippov, and Mikhail Panteleymonovich Kolyada

Ostryye radiatsionnyye porazheniya i ikh lecheniye (Acute Radiation Diseases and Their Treatment) Kiyev, Medgiz UkrSSR, 1962. 154 p. (Series: Biblioteka prakticheskogo vracha)
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Acute Radiation Diseases and Their Treatment

in the installations of the civilian defense medical service
are discussed in the light of the most recently promulgated
operational procedures. There are 47 references, all Soviet,
including three translations.

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Introduction

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"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341910006-6

GAMRETSKAYA, V.I. [Gamrets'ka, V.I.]; POLTAVETS, L.M. [Poltavets', L.M.];
BYCHKOVA, I.I.

Processing of No.150 acetate yarn in the production of warp-knit
goods. Leh.prom. no.2:17-19 Ap-Je '65.

(MIRA 18:10)

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341910006-6"

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CIA-RDP86-00513R001341910006-6

LUZHKOVA, F.M.; NAZAROV, V.P.; NEMTSOV, K.Ye.; ORLOV, A.P.; POLTAVETS,
I.S.; SHAR, Yu.I.; KANEVSKAYA, M.D., red.; MIKHLINA, L.T.,
tekhn. red.

[Keeping and training working dogs] Soderzhanie i dressi-
rovka sluzhebnykh sobak. Moskva, Izd-vo DOSAAF, 1963. 227 p.
(MIRA 16:7)

(Dogs--Training)

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341910006-6"

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341910006-6

POLTAVETS', L.M.

Shape of the cross section of synthetic fibers. Leh.prom. no.3:
(MIRA 16:11)
88-90 Jl-S '63.

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341910006-6"

POLTAVETS, L. Ye.

Poltavets, L. Ye. and Suprunovich, I. P.- "Complex-producing properties of n-ditolylthiocarbazone," Nauch. zapiski (Dnepropetr. gos. un-t), vol. XXIII, 1948, p. 201-07, - Biblio: 9 items

SO: U-5240, 17, Dec. 53, (Letopis 'Zhurnal 'nykh Statey, No. 25, 1949).

VAYNSHTOK, I.B.; POLTAVETS, P.Ye.

Unusual [form of] cranial dysostosis. Zhur. nevr. i psich.
(MIRA 15:6)
61 no.7:1017-1019 '61.

1. Kafedra khirurgii detskogo vozrasta (zav. - prof. A.R. Shurinok) Kiyevskogo meditsinskogo instituta na baze gorodskoy spetsializirovannoy bol'nitsy (glavnyy vrach T.P. Novikova) i kafedra nervnykh bolezney (zav. - prof. B.N. Man'kovskiy) Kiyevskogo meditsinskogo instituta.
(DYSOSTOSIS)
(SKULL—ABNORMITIES AND DEFORMITIES)

POLTAVENTS, V.T.

Cyst-like lymphangioma of the abdominal cavity. Khirurgija, Moskva 34
(MIRA 12:1)
no. 11:121-123 N '58.

1. Iz propedevticheskoy khirurgicheskoy kliniki sanitarno-gigiyenicheskogo
fakul'teta (dir. - prof. V.R. Khesin [deceased] i Moskovskogo ordena
Lenina meditsinskogo instituta im. I.M. Sechenova.

(ABDOMEN, neoplasms

lymphangioma (Rus))

(LYMPHANGIOMA, case reports

abdom. cavity (Rus))

YEFIMENKO, G.G., kand.tekhn.nauk; GIMMEL'FARB, A.A., knad.tekhn.nauk;
Prinimali uchastiye: POLTAVETS, V.V., inzh.; GRISHKO, V.A., inzh.;
NEMCHENKO, S.Z., inzh.; OSTAPENKO, V.A., tekhnik; POBUDINSKIY, L.I.,
tekhnik; KATSMAN, V.Kh., tekhnik; KARMAZIN, A.G., tekhnik

Regulating blast furnace operations by fluctuations of gas pressure
and the distribution of materials in the hearth bottom. Stal' 22
no.10:876-880 O'62. (MIRA 15:10)

(Blast furnaces)

ZHEMBUS, M.D.; VOLTAVENT, V.V.; KOTOV, E.I.

Forcing blast furnace smelting during operations with a combined
blow. Metallurg 9 no.6:9-11 Je '64. (MIRA 17:9)

1. Nachal'nik domennogo tschka metallurgicheskogo zavoda im. Petrov-
skogo (for Zhembus). 2. Dnepropetrovskiy metallurgicheskiy institut
(for Voltavent, Kotov).

POLTAVETS, V.V., inzh.

Connection between temperature and the content of carbon dioxide
along the radius of the blast furnace top. Stal' 22 no.10:883-888
0'62. (MIRA 15:10)

1. Dnepropetrovskiy metallurgicheskiy institut.
(Blast furnaces)

POLTAVETS, V.V.

Increasing the durability of tuyere systems. Metallurg 5 no.5:9-11
(MIRA 14:3)
May '60.

1. Dnepropetrovskiy metallurgicheskiy institut .
(Blast furnaces—Equipment and supplies)

POLTAVETS, V.V.

Effect of underloading a blast furnace on the temperature composition and static pressure of gases. Stal' 22 no. 12:1069-1071
(MIRA 15:12)
D '62.

1. Dnepropetrovskiy metallurgicheskiy institut.
(Blast furnaces—Equipment and supplies) (Gas flow)
(Heat—Transmission)

POLTAVETS, V.V.

Errors in the control of gas flow and the distribution of
materials in the blast furnace top. Metallurg 7 no.5:9-11
'62. (MIRA 15:5)

1. Dnepropetrovskiy metallurgicheskiy institut.
(Blast furnaces) (Thermocouples)

GARCHENKO, V. T.; BALAKIN, F.N.; YEFIMOV, L.M.; POGORELYY, V.P.; GREKOV,
Ye.A.; KORKOS' KO, N.M.; VORONOV, Yu.F.; POLTAVETS, Ye.I.; VOYTOV,
A.O.; SHTEYNBERG, L.S.

Production of steel in large-capacity open-hearth furnaces with
blowing of oxygen through the bath. Stal' 25 no.2:116-121 F '65.
(MIRA 18:3)

POLTAVETS, Ye.

Preventing troubles in the IAAZ engines. Avt.transn. 38
no.9:23-24 S '60. (MIRA 13:9)
(Diesel engines--Maintenance and repair)

POLTAVETS, Ya.

Operating on an independent budget. Voen.znan. 37 no.6:36 Je
'61. (MIRA 14:6)

1. Nachal'nik kluba sluzhebnogo cobakovodstva Dobrovol'nogo
obshchestva sodeystviya armii, avlatsii i flotu, Riga.
(Riga—Dog breeders' societies)

L 33951-65 EWT(m)/EWA(d)/EMP(t)/EWP(b) IJP(c) JD

ACCESSION NR: AP5005077

S/0130/65/000/002/0011/0012

AUTHOR: Kolganov, G. S.; Tarapurov, N. P.; Servetnik, V. M.; Poltavets, Z. I.

TITLE: Characteristics of rimmed steel production in 600-ton furnaces 15

SOURCE: Metallurg, no. 2, 1965, 11-12 14

TOPIC TAGS: rimmed steel, blast furnace, steel production, open hearth furnace,
top casting, manganese content, steel segregation 13

ABSTRACT: This article describes the production of rimmed steels St. 3 and St. 8
in 600-ton basic furnaces operating by the scrap-ore process with an average pig
iron consumption of 53%. The metal is top cast from 330-ton ladles into 8.2-ton
ingots. A three-layer scheme of charging is used: 40% ore, all limestone, re-
maining ore. Sinter with an iron content of 60.0-53.0% (0.9-1.1 basicity) or
59.5-66.6% (0.02-0.6 basicity) can be used in place of the ore. Desulfurization
is vigorous in the finishing period. An investigation showed that with top cast-
ing into tall (2100 mm), large (8.2-ton) ingots, ebullition of St. 3 was mainly
affected by manganese. It was found that for normal ebullition in the mold the
manganese content in the finished metal should not be more than 0.45% for this
steel. Ingots of both steels, St. 3 and St. 8, had honeycomb blowholes for almost
3/4 of the ingot height. The maximal size of the blowholes was 60-70 mm for St. 3

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L 33951-65

ACCESSION NR: AP5005077

and 80-90 mm for St. 8. The upper 10-15% of the ingot contained the maximal content of segregating elements. The degree of segregation of carbon, sulfur, and phosphorus in the steels was 120, 320, and 310%, respectively. Manganese hardly segregated at all. Chemical capping of the ingots proved to be a good method to reduce segregation of the elements. It was concluded that production of rimmed steel in large open-hearth furnaces provides the required quality of the metal. Orig. art. has: 1 table and 1 figure.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: IE, MM

NO KEY SUG: 000

OTHER: 000

Card

2/2

ZEMLYANITSKIY, Leonid Trankvilinovich; POLTAVSKAYA, Inessa Aleksandrovna; ZHELDAKOVA, Genriyetta Georgiyevna; DOLGOVA, K. M., red. izd-va; SALAZKOV, N.P., tekhn. red.

[Preparing urban soils for landscaping] Podgotovka gorodskikh pochvo-gruntov dlja ozelenenija. Moskva, Izd-vo M-va kommun. khoz. RSFSR, 1962. 70 p. (MIRA 16:3)
(Landscape gardening)

POLTAVSKAYA, I.A., k. i. sel'khoz. nauk; ZHELDAKOVA, G.G.;
NOVODERZHINA, Yu.G.

Effect of organic-mineral fertilizers and the AMB bacterial
preparation on the growth and development of woody plants.
(MIRA 14:10)
Agrobiologiya no.5:736-739 S-0 '61.

1. Rostovskiy nauchno-issledovatel'skiy institut Akademii kom-
munal'nogo khozyaystva.
(Woody plants--Fertilizers and ~~manure~~)

POLTAVSKAYA, L. S.

"The Resistance of Potato Species and Varieties to the Peach Aphid." Cand Biol Sci,
All-Union Sci-Res Inst of Plant Growing, VASKhNIL, Leningrad, 1954. (RZhBiol, No 2,
Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational
Institutions (13)
SO: Sum. No. 598, 29 Jul 55

POLTAVSKAYA, Lyudmila Semenovna, kand.biolog.nauk; SOROKIN, Mikhail Ivanovich,
kand.sel'skokhoz.nauk; KERIN, M., red.; CHIZHIKOVA, V., tekhn.red.

[Corn pests and diseases and their control in Mordovia] Vrediteli
i bolezni kukuruzy i bor'ba s nimi v usloviakh Mordovii. Saransk,
Mordovskoe knizhnoe izd-vo, 1960. 47 p.

(MIRA 14:3)

(Mordovia--Corn (Maize)--Diseases and pests)

KIREYeva, K.I.; KHlySTOVA, Z.K.; SHARPOVA, T.A.; POLTAVSKAYA, N.K.; KOLESNIKOVA, Z.K.; MARTEM'YANOVA, P.M.; GATILOVA, A.S.; ZHEZHIVA, T.A.

Observations on the epidemiology of dysentery in Vladivostok. Zhur. mikrobiologii i Epidemiologii: 29 no.10:49-52 O '58. MIRA 11:12)

1. Iz Vladivostokskogo instituta epidemiologii, mikrobiologii i gigiyeny i gorodskoy sanitarno-epidemiologicheskoy stantsii.
(DYSENTERY, BACILLARY, epidemiology,
in Russia (Rus))

CHERNYAKHOVSKAYA, Neonila Ivenovna; KHRIMOVICH, R.Y., etv. red.
POLTAVSKAYA, S.V., red.

[Industrial development and the condition of the working
class in Afghanistan] Razvitie promyshlennosti i polozhe-
nie rabochego klassa Afganistana. Moskva, Nauka, 1965.
(MIRA 18:11)
168 p.

GUREVICH, N.M., otv. red.; POLTAVSKAYA, S.V., red.; MIKHLINA, L.T.,
tekhn. red.

[Problems of Afghanistan's economy] Voprosy ekonomiki
Afganistana. Moskva, Izd-vo vost.lit-ry, 1963. 246 p.
(MIRA 17:2)

1. Akademiya nauk SSSR. Institut narodov Azii.

CHUVIN,V.; POLTAVSKIY,A.

Installation and use of freon automatic cooling installations.
Mor.flot 15 no.6:22-23 Je '55. (MLRA 8:8)
(Refrigeration on ships)

CHUVIM, V.; POLTAVSKIY, A.

The position of temperature-controlling valves. Khel.tekh.
32 no.4:60 0-11 '55. (MIRA 9:4)
(Refrigeration and refrigerating machinery)(Automatic control)

POLTAVSKIY A.V.

TERMINASOV, Yu. S., doktor fiziko-matematicheskikh nauk, professor;
TUZOV, L.V., kandidat fiziko-matematicheskikh nauk, dotsent;
POLTAVSKIY, A.V., kandidat fiziko-matematicheskikh nauk, dotsent.

Radiographic investigation of the quality of surfaces subjected to
milling and fine turning. Trudy LIMI no.13:125-144 '56.
(Surfaces (Technology)) (Radiography) (MLRA 10:8)
(Metal cutting)

GUBANOVA, V.A.; POLTAVSKIY, A.V.; SKIBA, N.S.

Radioscopic study of aragonites from the Shorsu mine.
Izv. AN Kir. SSR. Ser. est. i tekhn. nauk 3 no.1:107-108 '61.
(MIRA 14:?)

(Shorsu--Aragonites) (Radiography)

Category : USSR/Solid State Physics - Structure of Deformable Materials

E-8

Abs Jour : Ref Zhur - Fizika, No 3, 1957, No 6734

Author : Terminasov, Yu.S., Yakhontov, A.G., Foltavskiy, A.V.

Inst : Leningrad Engineering-Economic Institute, USSR

Title : X-ray Diffraction Investigation of the Surface Quality of Metals, Treated by Grinding and Fine Cutting.

Orig Pub : Izv. AN SSSR, ser. fiz., 1956, 30, No 6, 689-692

Abstract : An X-ray-diffraction method (using the broadening and attenuation of the interference lines), and the microhardness method were used to study the dependence of the intensity of hardening on the metal surface and the distribution of the hardening through the thickness of the surface layer on the technological treatment conditions. Grinding or cutting the lathe strengthens the surface layer of the metal, this being evidenced by an increase in the microhardness by 30 -- 70%, a broadening of the diffraction lines by 100---200%, and a reduction in the relative intensity of the lines by 40 -- 76%, depending on the working conditions. The width of the

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POLTAYSKIY A.V.

PHASE I BOOK EXPLOITATION

SOV/3618

Akademiya nauk Kirgizskoy SSR

Investig. Seriya. Fiziko-tekhnicheskikh nauk, tom 1, vyp. 1
(Nauka, Series on Natural and Technical Sciences, Vol. 1, No. 1)
Pravnoe, 1959. 168 p. 500 copies printed.

Ed.: P.T. Kashirin; Tech. Ed.: M.G. Anikina.

PURPOSE: This book is intended for research scientists and teachers in institutes of higher education who may be interested in developments and research trends in various scientific fields.

COVERAGE: The book contains 12 articles by persons affiliated with the Academy of Sciences Kirgiz SSR on studies in physical chemistry, industrial chemistry, applied physics (elasticity, dynamics), electrical power engineering, electronics, aeronautics, metallurgy, pure mathematics, etc. A bibliography of 1957 publications of the Academy includes works on history, archaeology, economics, linguistics, literature, geology, biological sciences (zoology, biology, medicine), and technology. No personal names are mentioned. References accompany most of the articles.

Amanchekmedova, G.B., N.P. Shelekhina, and Z.A. Maslennikovskaya. Tur-
bogenerator. Determination of the Saturation Coefficient of
Electrolytic Deterioration of Peptides 43

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Danichev, P.S., and M.K. Permetchikov. Effect of the Weight of an
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Lebedev, N.N. Electric Power Systems in High Mountainous Regions 69

Filippov, N.A. Methods of Transformation of Tree Functions With
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Bakalo, V.Ya. Indices of Moisture Adequacy in Kirgiz Pasture
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Bogolyubov, V.M., N.A. Janashlyev, A.V. Poltavskiy, and Yu.S. Terninov.
Thermal Study of the Thermal Effect on Steel Samples Hardened After
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Konyukh, M.M., A.V. Poltavskiy, and Yu.S. Terninov. X-Ray Study
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Imanbayev, A. General Boundary Value Problem for a Nonlinear
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Erman, L.M., and M.M. Oerasimova. Bibliography of Publications
of the Kirgiz SSR Academy of Sciences in 1957 145

AVAILABLE: Library of Congress (Q 60. AS612)

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POLTAVSKIY, A.V.

TERMINASOV, Yu.S.; YAKHONTOV, A.G.; POLTAVSKIY, A.V.

X-ray analysis of the quality of ground and finish-turned
metal surfaces. Uch. zap. Ped. inst. Gerts. 125:49-54 '56.
(MLRA 9:12)

(Metallurgy)

POLTAVSKIY, A.V.

TERMINASOV, Yu.S.; YAKHONTOV, A.G.; POLTAVSKIY, A.V.

X-ray examination of the quality of ground and turn-finished metal
surfaces. Izv.AM SSSR,Ser.fiz. 20 no.6:689-692 Je '56. (MIRA 10:1)

1. Leningradskiy inzhenerno-ekonomicheskiy institut imeni V.M.Molo-
tova. (Grinding and polishing) (Metallography)

POLYAVSKIY, A.V.

4114* (Russian) X-Ray Study of the Quality of the Surface
on Finely Ground and Machined Metals. Rентгенографи-
ческое исследование качества поверхности металлов, обрабо-
таных шлифованием и точкой в точечном. Ju. S. Termin-
ский, A. G. Iakhoštov, and A. V. Polyavskii. Izvestia Akademii
Nauk SSSR, Serija Fizicheskaya, v. 20, no. 6, June 1956, p. 699.
992.

Parallels in structural changes and microhardness between a
finely-machined surface and the surface produced by grinding-
polishing. Distortions and distortions in lattice and reduction
in size and deformation.

3

At 100

20f

POLTAVSKIY A.V.

X-ray investigation of the quality of polished or fine cut
metals

The following conclusions were made:

- The grain size of the metal is similar to the grain size of steel and Fe after an increase in the temperature of heating the whole bar to 1000°C and cooling it down to 500°C.
- The grain size of the metal is small (about 10-15 μ) and the deviations from the mean value are not large as 150 μ after polishing and more than 200 μ after
4. cutting.

S. Pakswet

LFH

POLTAVSKIY, A. V.

POLTAVSKIY, A. V. - "X-Ray Investigation of Residual Stresses of the First, Second, and Third Kind in the Surface Layer of Metal Subjected to Fine Turning." Leningrad State Pedagogical Inst imeni A. I. Gertsen, Chair of Experimental Physics, Leningrad, 1955 (Dissertations For the Degree of Candidate of Physicomathematical Sciences)

SO: Knizhnaya Letopis' No. 26, June 1955, Moscow

POLTAVSKIY, A.V.; TERMINASOV, Yu.S.

X-ray diffraction study of first-order residual stresses arising in
the fine turning of metals. Izv. AN Kir. SSR. Ser. est. i tekhn.
nauk 1 no.3:45-50 '59. (MIRA 14:9)
(Turning) (Strains and stresses)

VISHNEVSKIY, A.A.; BYKHOVSKIY, M.L.; VINOGRADOV, V.V.; DANILOV, M.V.;
KOCHIASHVILI, V.I.; PO-TAVSKIY, B.M.

Use of computing machines in the diagnosis of mechanical jaundice.
Eksper. khir. i anest. 9 no.4:22-28 Jl-Ag '64.

(MIR 18:3)

1. Institut khirurgii imeni Vishnevskogo (dir. - deystvitel'nyy
chlen AMN SSSR prof. A.A. Vishnevskiy) AMN SSSR, Moskva.

POLTAVSKIY, F. M.

PA 33/49T51

USSR/Engineering
Loading Equipment
Fork Lifts

Jul 48

"The Electric Fork Lift EK-2P and Electric Loader
EKP-1500." F. M. Poltavskiy, Engr, 2½ pp

"Mekh Trud i Tyazh Rabot" No 7

Subject equipment is based on plans of the EK-2
electric dolly manufactured by a Moscow factory.
Includes pictures, sketches, performance, and
operating characteristics of the EK-2P and EKP-
1500. Both are capable of handling loads up
1,500 kg. Former can lift loads a height of 125
mm, while the latter can lift loads up to 1,500 mm.
MFB

33/49T51

BARKOV, N., inzh. (Khar'kov); POLTAVSKIY, G. (Cherkassy); CHELNOKOV, I.B.;
GLADKIKH, I.A.; NEGRIYENKO, B.A.; BARANNIKOV, M.

Readers' letters. Bezop.truda v prom. 7 no.3:34 Mr '63.
(MIRA 16:3)

1. Komandiry gornospasatel'nykh vzvodov, Donetskaya obl. (for
Chelnokov, Gladkikh, Negriyenko). 2. Shakhta "Mariya-Glubokaya",
Luganskaya obl. (for Barannikov).

(Industrial safety)

POLTAVSKIY, I. L.

BATOZSKAIA, E. A., LISHCHENKO, P. S., NOVIKOV, M. I., POLTAVSKIY, I. L.,
BRIAZKUN, G. F., PRIKHOD'KO, P. G., NIKITIN, V. N.

Decisive role of outer media and functional state of the organism
in ontogenesis of the blood plasma in horses. Zh. obsh. biol.
11:3, May-June 50. p. 198-202

1. Khar'kov Zootechnical Institute and Khar'kov State University.

CLML 19, 5, Nov., 1950

CHIRKIN, A. P., doktor tekhn. nauk, prof.; GAVRILENKO, M. K., kand.
tekhn. nauk; POLTAVSKIY, I. P. inzh.

Measuring the temperature of collector plates and windings of
the auxiliary poles of diesel locomotive electric traction
engines during the movement of the train. Trudy KHIIT no. 52:
44-55 '61. (MIRA 15:10)

(Electric railway motors--Testing)
(Thermistors)

ACC NR: AP6023660

EC

SOURCE CODE: UR/0103/66/000/004/0032/0041

AUTHOR: Butkovskiy, A. G. (Moscow); Poltavskiy, L. N. (Moscow)

ORG: none

TITLE: Optimal control of a two-dimensional distributed oscillating system

SOURCE: Avtomatika i telemekhanika, no. 4, 1966, 32-41

TOPIC TAGS: optimal control, oscillating system, set theory, function theory, orthogonal function

ABSTRACT: An analysis is made of two problems involving the optimal control of a two-dimensional oscillating system with the control norm $u(t)$ in space L_q ($q = 2, 3, \dots, \infty$) limited by the number $L > 0$. Through the use of the L -problem of the moments (A. G. Butkovskiy. Metod momentov v teorii optimal'nogo upravleniya sistemami s raspredelennymi parametrami, Avtomatika i telemekhanika, t. XXIV, No. 9, 1963), explicit formulas are obtained for the optimal control of a two-dimensional oscillating system with "part" of the oscillations quenched. Qualitative characteristics of the controlled process are given, and it is shown that the expressions derived by the authors in a previous work (Optimal'noye upravleniye raspredelennoy kolebatel'noy sistemy. Avtomatika i telemekhanika, t. XXVI, No. 11, 1965) for optimal

Card 1/2

UDC: 62-505

Card 2/2

I 5099-66 EWT(d)/CWT(m)/EWP(w)/EPF(n)-2/EWP(l)/ETC(m)
 ACC NR: AP5027883

SOURCE CODE: UR/0103/65/026/011/1900/1914

WV/EN/BC

AUTHOR: Butkovskiy, A. G. (Moscow); Poltavskiy, L. N. (Moscow)

ORG: none

44

23
B

TITLE: Optimum control of a uniformly distributed vibratory system

9.44

SOURCE: Avtomatika i telemekhanika, v. 26, no. 11, 1965, 1900-1914

TOPIC TAGS: optimum control, vibratory system control, string vibration, moment theory

ABSTRACT: The problem of optimal control of uniformly distributed vibratory systems is analyzed by means of a vibrating string whose motion is described by the wave equation in which the displacement function $Q(x, t)$ satisfies the following boundary and initial conditions:

$$\begin{aligned} Q(0, t) &= u(t), \quad Q(\pi, t) = 0, \\ Q(x, 0) &= Q_0(x), \quad Q'(x, 0) = Q_1(x) \end{aligned} \quad (1)$$

where $Q_1(x)$ and $Q_0(x)$ are the initial velocity and initial displacement of the string, respectively. The following optimum control problem is formulated: to find a control $u(t)$ whose norm, defined by the equation

Card 1/2

UDC: 531.391

07010674

BUTKOVSKIY, A.G. (Moskva); POLTAVSKIY, L.N. (Moskva)

Optimal control of a distributed oscillatory system.
Avtom. i telem., 26 no.11:1900-1914 N '65.

(MIRA 18:12)

1. Submitted January 29, 1965.

L 01258-67 EWT(d)/EWP(k)/EWP(h)/EWP(l)/EWP(v) BC
 ACC NR: AP6032426 SOURCE CODE: UR/0103/66/000/009/0048/0053

AUTHOR: Butkovskiy, A. G. (Moscow); Poltavskiy, L. N. (Moscow)

ORG: none

TITLE: Optimal control of oscillatory processes 3B

SOURCE: Avtomatika i telemekhanika, no. 9, 1966, 48-53.

TOPIC TAGS: optimal control, oscillatory process control, oscillation quenching, wave equation, telegraph equation

ABSTRACT: The optimal control problem of oscillatory processes described by the one-dimensional wave equation

$$\frac{\partial^2 Q(x, t)}{\partial t^2} = a^2 \frac{\partial^2 Q(x, t)}{\partial x^2} \quad (1)$$

is analyzed in the domain $D = \{0 \leq x \leq \pi, 0 \leq t \leq T\}$ under the following conditions

$$Q(0, t) = u(t), \quad Q(\pi, t) = 0, \quad (2)$$

$$Q(x, 0) = Q_0(x), \quad \left. \frac{\partial Q(x, t)}{\partial t} \right|_{t=0} = Q_1(x). \quad (3)$$

UDC: 62-507.7

Card 1/3

L 01258-67

ACC NR: AP6032426

The optimal control problem is formulated as follows: to find a control $u(t)$ (the wave) which will quench the oscillations within a fixed time T at the minimal value of the norm $\|u(t)\|_q$, that is, by selecting the proper $u(t)$ which will ensure that at a minimal value of $\|u(t)\|_q$, the conditions

$$Q(x, T) = 0, \quad Q'_i(x, T) = 0 \quad (4)$$

will be satisfied. The following concepts of quenching and self-quenching functions $u(t)$ (waves) are introduced. The function $u(t)$ defined on the interval $(0, T)$ for equation (1) with conditions (2) and (3) is called a quenching function in time T if conditions (4) are satisfied. The function $u(t)$ defined on the interval $(0, T)$ for equation (1) with condition (2) and initial conditions is called a self-quenching function in time T if conditions (4) are satisfied. It is pointed out that both functions are solutions of the so-called L-problem of moments. Examples of the quenching and self-quenching functions in time $2\pi a$ are presented. The solution of the optimal control problem is sought in the form

$$u_\theta(t) = u^r(t) + K_\theta u^c(t), \quad (5)$$

where $u^r(t)$ is a quenching function selected in a certain manner, $u^c(t)$ is a self-quenching function also selected in a certain manner, and K_θ is a constant determined from a certain condition. Conditions for the existence of quenching functions are

Card 2/3

L C1258-67

ACC NR: AP6032426

presented and it is established that both functions which determine the optimal control (5) have the period $2\pi/a$. Expressions for quenching and self-quenching functions are derived and the optimal control function is determined. The optimal control process described by the telegraph equations is analyzed as a particular case. The optimal control function $u(t)$ is derived under the assumption that the norm $\|u\|_q$ is bounded. Orig. art. has: 26 formulas. [LK]

SUB CODE: 20 SUBM DATE: 31Jan66/ ORIG REF: 005/ ATD PRESS: 5097
12

hs

Card 3/3

POLTAWSKIY, M.A.

OVHANYAN, Surik Vartanovich; POLTAWSKIY, M.A., otvetstvennyy redaktor;
VOZNESENSKIY, V.D., redaktor izdatel'stva; NOVIKOVA, S.G.,
tekhnicheskiy redaktor

[The rise of the workers' movement in Austria (1905-1906)]
Podzem rabochego dvizheniya v Avstrii (1905-1906 gg.) Moskva,
Izd-vo Akad. nauk SSSR, 1957. 244 p. (MLRA 10:4)
(Austria--Labor and laboring classes)

L 45620-66 EWT(m)/T WW/DJ

ACC NR: AT6016854

(N)

SOURCE CODE: UR/3189/65/000/001/0087/0095

44
BT/
V
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AUTHOR: Poltavskiy, Yu. D.; D'yachenko, S. K.

ORG: None

TITLE: A method for calculating the carrying capacity of wedge-shaped oil layers in noncircular plain bearings on lightly loaded reversible shafts

SOURCE: Kharkov. Politekhnicheskiy institut. Vestnik, no. 1(49), 1965.
Mashinostroyeniye, no. 1, 87-95

TOPIC TAGS: lubricating oil, journal bearing, PRESSURE GRADIENT

ABSTRACT: An exact expression is found for the law of variation in the thickness of the oil layer in a cylindrical bearing in terms of the coordinate along which the pressure gradients are distributed. It is shown that approximation of the profiles of a cylindrical bearing and shaft results in extremely simple expressions for the variation in the thickness of the oil film in the clearance between a noncircular bearing and a circular shaft, and the carrying capacity of the oil layer in two-wedge, three-wedge symmetric and three-wedge asymmetric noncircular bearings is approximated. Orig. art. has: 6 figures, 33 formulas.

SUB CODE: 13/ SUBM DATE: None/ ORIG REF: 002/ OTH REF: 003

Card 1/1 MJS

L 45621-66 EWT(m)/T WW/DJ
ACC NR: AT6016855 (N)

SOURCE CODE: UR/3189/65/000/001/0096/0101

AUTHOR: Poltavskiy, Yu. D.; Bogdanov, O. I.

41
B7/

✓

II
17

ORG: None

TITLE: A method for calculating the carrying capacity of plain support bearings of finite length

SOURCE: Kharkov. Politekhnicheskiy institut. Vestnik, no. 1(49), 1965,
Mashinostroyeniye, no. 1, 96-101

TOPIC TAGS: Journal bearing, finite difference, partial differential equation,

REYNOLDS NUMBER

ABSTRACT: The authors use the method of finite differences to solve the three-dimensional Reynolds equation in the dimensionless form

$$\frac{\partial}{\partial \varphi} \left(h^3 \frac{\partial p}{\partial \varphi} \right) + \frac{\partial}{\partial z} \left(h^3 \frac{\partial p}{\partial z} \right) = -\frac{\partial h}{\partial \varphi}.$$

Methods are given for approximating the derivatives in the left member of this equation to any degree of accuracy and for reducing the equation to a form suitable for approximation. A system of finite-difference equations is derived which approximates the given equation in the matrix form and this system is solved by the relaxation

Card 1/2

L 45621-66

ACC NR: AT6016855

method. An expression is derived for estimating the error in the solution. The solution for this equation is basic in calculating the carrying capacity of a plain bearing of given length. Orig. art. has: 23 figures.

¹²
SUB CODE: 13/ SUBM DATE: None/ ORIG REF: 003/ OTH REF: 003

Card 2/2 mjs

POLTAVSKIY, V.G.

Autovisceroscopic hallucinations. Zhur. revr. i psikh. 65 no.12:
1832-1839 '65. (MIR 19:1)

1. Moscowkaya gorodskaya klinicheskaya psichiatricheskaya
bol'ница im. Kashchenko (glavnyy vrach - doktor med. nauk
A.L. Andreyev). Submitted August 12, 1964.

POLTRIVSKIY, V. G.

Dissertation: "Practice of the Combined Use of Insulin and Oxygen in the Treatment of Psychoses." Cand Med Sci, First Moscow Order of Lenin Medical Inst, 12 Apr 54. (Fechernyyaya Moskva, Moscow, 1 Apr 54)

SO: SUM 243, 19 Oct 1954

POLTAVSKIY, V.G.

Some clinical characteristics of schizophrenia originating after
a psychic trauma. Zhurn. nevru i psich., 64 no. 9:1374-1380 '64.
(MIHA 17:12)

1. Moskovskaya gorodskaya klinicheskaya psichiatricheskaya
bol'nička No.1 im. Kuznetcova (glavnnyy vrach - doktor med.
nauk A.I. Andreyev).

POLTAWSKIV, V.G.

✓ The subcutaneous injection of oxygen as a means of lowering the insulin resistance (tolerance) of neuropsychiatric patients who receive insulin therapy. V. G. Poltavskii. Zbir. Naukopol. i Psichiatr. im. Korsakova 52, No. 4, 67-75 (1952).—The effect of subcutaneous injection of O on the hypoglycemic syndrome in insulin therapy was studied on the assumption that the injection of O into the organism during insulin therapy enhances the somatic manifestations of the insulin hypoglycemia and thereby facilitates the arrest of sensitization. Twenty patients were under treatment. Among them were schizophrenics of the paranoid type, catatonics, and other types of schizophrenics. One l. of O was administered daily to each patient. The injection of O caused the hypoglycemic state to assume a graver character and to appear sooner. The doses of insulin required to bring about a state of coma could be reduced. The simultaneous administration of insulin and O did not materially affect the hypoglycemic syndrome as compared with the administration of insulin alone but no blood analyses were made.

B. S. Levine

med
1

Psychiatric Clinic, Odessa Med. Inst.

POLTAVSKIY, V.G. (Moskva)

Insulin therapy in mental patients by the Yagdoglu method.
Vrach. delo 4:136-138 Ap '62. (MIRA 15:5)

1. Institut psichiatrii AMN SSSR.
(INSULIN SHOCK THERAPY)

LAPIDUS, B.V.; POLTAVSKIY, V.T.; RYBAK, G.D.; OSHEROVICH, M.D.;
KANAATOV, S.; GELEVY, A.M.; KUDINA, Z.A.; STANKEVICH,
M.P.; PRITULYAK, O.M.

[National economy of the Kirghiz S.S.R. in 1963; a statistical yearbook] Narodnoe khoziaistvo Kirgizskoi SSR v 1963 godu; statisticheskii ezhegodnik. Frunze, Statistika, 1964. 237 p.

(MIRA 18:6)

1. Tsentral'noye statis'cheskoye upravleniye pri Sovete
Ministrov Kirgizskoy SSR.

POLTAVSKIY, V.T., otv.red.; TROTSENKO, V.P., tekhn.red.

[Economy of Tien Shan Province; a statistical manual] Narodnoe
khoziaistvo Tian'-Shan'skoi oblasti; statisticheskii sbornik.
Frunze, 1958. 109 p. (MIRA 12:2)

1. Tyan'-Shan'skaya oblast'. Statisticheskoye upravleniye.
(Tien Shan Province--Economic conditions)

L 23427-66 EWT(1)/FCC GW
ACC NR: AT6012598

SOURCE CODE: UR/3201/65/000/002/0114/0122

AUTHOR: Klinov, F. Ya.; Andreyev, V. D.; Poltavskiy, V. V.; Lobova, L. Ye.

29

ORG: Institute of Applied Geophysics (Institut prikladnoy geofiziki)

23

TITLE: Measurement of two wind-direction components ^{1/4 4155} at the high meteorological tower

BT

SOURCE: Leningrad. Institut prikladnoy geofiziki. Trudy, no. 2, 1965. Pogranichnyy sloy atmosfery (Boundary layer of the atmosphere), 114-122

TOPIC TAGS: micrometeorology, meteorological instrument, meteorological tower, wind measuring set, bivane

ABSTRACT: A wind-direction measuring set is used to measure the horizontal and vertical components of the direction of the wind-velocity vector. The set consists of transducers whose sensing element is a special "bivane," a recorder, a digital printing device, and a power supply; it is installed on the high meteorological tower of the Institute of Applied Geophysics. The bivane consists of a three-arm system balanced on a column, the arms being set 120° apart. A ring stabilizer is mounted on the end of one arm, 320 mm from the system's center of rotation. It was established experimentally that the flow of air is distorted by the transducer casing to a distance not more than 200—250 mm from the casing; thus the stabilizer is within the undisturbed flow, which ensures accurate tracking of wind directions (within the limits of system errors). The instrument and the bivane are described. At

Cord 1/4

UDC: 551.506+508+508.2+508.5+510

L 23427-66

ACC NR: AT6012598

6

present, the transducers are installed on 5 levels of the tower; the threshold sensitivity (both vertical and horizontal) of the transducers is about 0.6 m/sec. If the initial mismatch between the bivane and the wind direction is 0° or 180° , the threshold value is higher— 1.0 — 1.3 m/sec. The principle measurement errors are: 1) error in the horizontal orientation of transducers relative to the mire on the working levels— 1.5 — 2.0° ; error due to mismatch of the servosystem— 1.0 — 3.0° (transducer selsyn, 0.5 — 1.0° and sensor selsyn, 0.75 — 1.5°); 3) error in readings from the diagram tape in the recording system— 2.5° . Thus, the total error in measuring wind directions is about 5 — 7° (see Fig. 1). Some variations in profiles of the wind direction in the lower 300 m of the atmosphere are shown. These profiles were constructed for 30-min intervals, which permitted stable forms of curves that represent "sets" of possible forms of wind-direction profiles in the layer (see Table 1). One group of profiles shows a shift to the right with height in the wind direction throughout the entire layer (I,II), and to the left (XVI—XVIII); in a number of cases, the wind direction was constant throughout most of the entire layer (IV); there were layered combinations of right and left shifts in the wind along with constant directions (X, XII). The recording bivane was designed and tested under the supervision of G. I. Tsitsurin. N. P. Tofenchuk, V. S. Storozhka, V. G. Stefanov, and G. S. Vasil'yev participated in developing the wind-direction measuring set installed on the high tower and procedures for two-dimensional wind

Card 2/4

L 23427-66

ACC NR: AT6012598

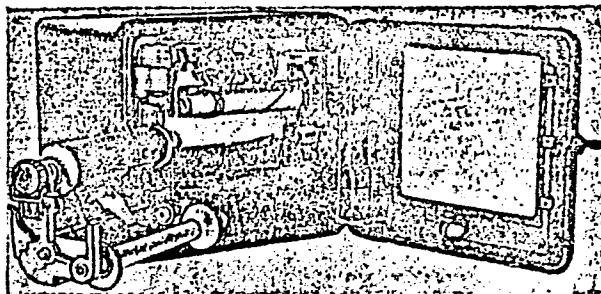
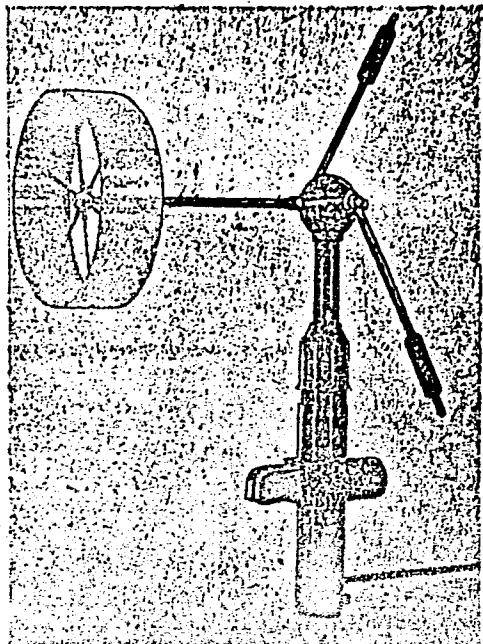


Fig. 1. Wind-direction measuring set and the recording device

Cord 3/4

L 23427-66

ACC NR: AT6012598

Table 1. Some of the variations in wind-direction profiles in the lower 300 m layer of the atmosphere

Cases	a	b	c	d	e
A _H	50	15	60	70-90	90-180
A _B	10	5	15	40-50	90-150
A _{H/A_B}	5	3	4	2	1

measurements in the lower 300 m of the air. Orig. art. Has: 6 figures and 3 tables.

[EO]

SUB CODE: 04/ SUBM DATE: none/ ORIG REF: 009/ OTH REF: 001/ ATD PRESS:

4233

Card

4/4 JMN

ACCESSION NR: AT4010224

S/3056/63/000/000/0053/0059

AUTHOR: Klinov, F. Ya.; Pol'tavskiy, V. V.

TITLE: Measurement of wind velocity in the lower 300 meter layer of the atmosphere from a high meteorological tower

SOURCE: Issledovaniye nizhnego 300-metrovogo sloya atmosfery*. Moscow, 1963, 53-59

TOPIC TAGS: meteorology, wind velocity, wind velocity measurement, anemometer, lower atmosphere, photoelectric anemometer, wind velocity profile, wind velocity altitude dependence

ABSTRACT: The authors present a block diagram and a detailed description of the operating characteristics of an improved photoelectric anemograph developed on the basis of the remote-controlled anemograph developed at the Leningradskiy gidrometeorologicheskiy institut (Leningrad Hydrometeorological Institute). This apparatus consists of a system of photoimpulse transmitters situated at various levels of the tower; a converter, consisting of a pulse-shaping cascade, an assembly of individual converting lines, and a terminal amplifying cascade; a relay recorder; and a power unit. A calibration curve for the photoimpulse transmitters is shown. The authors also present some examples of the wind velocity profiles

Card 1/2

ACCESSION NR: AT4010224

in the lower 300-meter layer obtained by means of their improved apparatus.
"N. P. Tofanchuk, V. S. Storozhko, and others took part in the development and
perfection of the apparatus." Orig. art. has: 5 figures.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 20Feb64

ENCL: 00

SUB CODE: AS, SD

NO REF SOV: 009

OTHER: 000

Card 2/2

SOBOLEV, V., IVANOVA, A., BONDARENKO, I., POITAVSKIY, Yu.

Rationalizing a production process. Biul.nauch. inform.;
trud i zar. plata 3 no.1:49-51 '60. (MIRA 13:6)
(Zaporozh'ye--Metal cutting)

POLTAVTSEV, A., kapitan dal'nego plavaniya; TVER'YE, N., dotsent,
starshiy nauchnyy sotrudnik

"Nautical astronomy" by B.P.Krasavtsev, B.P.Khliustin. Reviewed
by A.Poltavtsev, N.Tver'e. Mor. flot 22 no.2:45 F '62.
1. ~~Central'nyy nauchno-issledovatel'skiy institut morskogo~~ (MIRA/15:4)
flota.
(Nautical astronomy) (Krasavtsev, B.P.) (Khliustin, B.P.)

PCLTAVTSEV, A. N.

Medicine

Construction of a simplified type of hospital. Moskva, Medgiz, 1945.

Monthly List of Russian Accessions, Library of Congress, September 1952. unclassified.

POLTAVTSEV, A. N.

"Problem of Hospital Building." Sov. Med., No. 11,
1949. Inst. Organization Public Health & History Medicine
N. A. Semashko, Acad. Med. Sci., -cl949-.

POLTAVTSEV, A.N.

~~Feldsher-midwives centers. Sovet.med. No.3:34-36 Mar 51. (CLML 20:6)~~

1. Moscow.

GORYUSHIN, V.A.; MARSHAK, M.S., professor; POLTAVTSEV, A.N., inzhener-arkhitektor;
KALININA, V.A., inzhener-tehnolog [authors]; VLADIMIR, B. [reviewer].

"Hospital kitchens"; a manual for architects and organizing physicians. Gig.
i san. no.11:59-60 N '53. (MLRA 6:10)
(Hospitals--Construction) (Kitchens)

NAUMOV, Aleksandr Ivanovich; POLYAKOV, V.G., retsenzent; POLTAVTSEV,
A.Ye., red.; SHLENNIKOVA, Z.V., red.izd-va; BOBROVA, V.A.,
tekhn.red.

[Theory, construction and repair of ships for inland navigation]
Teoriia, ustroistvo i remont sudov vnutrennego plavaniia. Izd.2.
perer. i dop. Moskva, Izd-vo "Technoi transport," 1959. 367 p.
(MIRA 13:2)

(Naval architecture) (Ships--Maintenance and repair)

FEDOROV, Vasiliy Fedorovich; KOMOGORTSEV, P.Ya., red.; SENNIKOVSKIY,
N.M., inzh., retsenzent; POLTAVTSEV, A.Ia., inzh., retsenzent;
VITASHKINA, S.A., red. Izd-va; YERMAKOVA, T.T., tekhn.red.

[Steam boilers and engines for river vessels] Rechnye parovye
kotly i mashiny. Moskva, Izd-vo "Rechnoi transport," Pt.2.
1958. 312 p. (MIRA 12:1)
(Boilers, Marine) (Marine engines)

POLITVTSEV, I. P., PETRUKHA, S.

Excavating Machinery

KF-30 ditch-digging machine. MT3 13 No. ?, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

POLTAVTSEV, I. S.

Agricultural Machinery

Calculating the capacity of a cutter ditch-digger. Sel'khozmashina No. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

GURBAN, Vasiliy Yustinovich; POLTAVTSEV, I.S., kand. tekhn. nauk,
retsenzent; CHISTYAKOVA, L.G., inzh., red.; GORNOSTAYPOL'SKAYA,
M.S., tekhn. red.

[Distribution and safety devices in hydraulic systems of excavators]
Raspredelitel'nye i predlikhranitel'nye ustroistva gidrosistem ekska-
vatorov. Moskva, Mashgiz, 1962. 150 p. (MIRA 15:6)
(Excavating machinery--Hydraulic drive)

POLTAVTSEV, I.S., Cand Tech Sci -- (diss) "Milling trench
diggers." Kiev, 1959, 14 pp (~~Joint~~ Council of All-Union
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[Trenching machinery with rotary cutters] Frezernye kanavokopateli.
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Author: Nel'zina, E. N., Slinko, L. I., Kadatskaya, K. P., Ivanov, D. A., Yamshchikova, Kh. G., Poltavtsev, N. N., Skirda, G. I.

Inst:

Title: Ixodic Ticks (Parasitiformes, family Ixodidae) of Rodents in Northwestern Caspian Coast.

Orig Pub: Sb tr. Astrakhansk, protivochumn. st., 1955, No 1, 416-433.

Abstract: The fauna of ixodic ticks in the district studied is comparatively sparse (5 species, more or less, are numerous); individual specimens may be regarded as of Kirgiz and European-Siberian origin. Closest biocenotic ties with rodents are found in *Ixodes laguri laguri* and *Thipicephalus schulzei*. The first of these (steppe species) is connected with rodents who build deep, comparatively permanent burrows (suslike, hamsters) and is surmised to play a substantial role in the epizootiology of tularemia and some rickettsioses among suslike, hamsters and field mice. *Rh. schulzei* inhabits semideserts; its principal hosts are the small and yellow susliks.

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AUTHOR: Nechiporenko, Ye. P. (Doctor of technical sciences); Mrivoruchko, V. M.; Mitrofanov, A. S.; Poltavtsev, N. S.

ORG: none

TITLE: Siliconizing of refractory metals

SOURCE: Seminar po zharostoykim pokrytiyam. Leningrad, 1964. Zharostoykiye pokrytiya (Heat-resistant coatings); trudy seminara. Leningrad, Izd-vo Nauka, 1965, 55-58

TOPIC TAGS: molybdenum, tantalum, tungsten, heat diffusion

ABSTRACT: The kinetics and the mechanism of siliconizing of refractory metals in a vacuum under stabilized conditions (5-50 hrs) were studied previously by K. E. Ivanov and the authors (PMM, 17, 6, 862, 1964). The purpose of the present work was to study the initial stages of siliconizing and to determine the parameters controlling the rate of this complex process. A foil plate (0.1 x 10 x 20 mm) and cylindrical (0.5 mm diameter and 20 mm long) samples of Mo, Ta, and W were covered

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by powdered (grain size 5-10 μ) silicon, containing (in %) 99.9206, Si, 0.0009 Fe, 0.02 Al, 0.004 Mg, 0.04 Ca, 0.004 Cu, 0.0012 Zn, 0.0012 Cr, 0.0001 Mn, 0.0013 Sn, and 0.0025 Pb, placed into a molybdenum vessel and carried into a preheated vacuum electrical furnace (1×10^{-5} mm Hg) through a special forechamber. The study was made at 1200, 1250, and 1300°C, which were registered by a Pt-PtRh thermocouple and an EPP-09-type automatic potentiometer. The increases in weight (in mg cm^2) of siliconized samples were determined after various exposures (t in minutes). The curves for weight increase versus time were plotted for 1200, 1250, and 1300°C, and the samples were subjected to an X-ray diffraction study. During siliconizing of Mo at 1250°C, the Mo_3Si phase was formed first, then (after 25 minutes) the Mo_5Si_5 phase appeared, and the MoSi_2 was formed after 150 minutes. The intervals between the formation of various phases decreased with increasing temperatures: the Mo_5Si_5 phase at 1200°C appeared after 110 minutes, at 1250°C after 25 minutes, and the MoSi_2 phase was formed at 1300°C after 5-6 minutes. The process was a similar one during siliconizing of Ta and W except for the fact that some phases, which should have been present according to the phase diagram, did not appear at all. Only Ta_5Si_3 and TaSi_2 were formed during siliconizing of Ta ($\text{Ta}_{4.5}\text{Si}$ and Ta_2Si were absent); the W_5Si_3 phase appeared first and WSi_2 later during the siliconizing of W. After establishing the phase equilibrium, the chemical composition of the layer

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did not change. The points of inflection on the curves indicated the formation of a subsequent, new, higher phase. The Mo_3Si and Mo_5Si_3 phases grew according to the parabolic law. The rate of siliconizing was thus controlled by diffusion, even during the initial stages of the process. Orig. art. has: 2 figures.

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